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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,514	10/26/2001	William F. Foote	SUN1P510/P6387	9967
22434	7590	01/04/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			TRUONG, CAMQUY	
			ART UNIT	PAPER NUMBER
			2127	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,514

Applicant(s)

FOOTE ET AL.

Examiner

Camquy Truong

Art Unit

2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/30/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-49 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claims 8, 26, 44, 10 and 28 are rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - A. As to claims 8, 10, 26, 28 and 44, the claim language " May be " is indefinite. It is uncertain whether anything actually happen.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 10-12, 15-21, 28-30, 33-39 and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan (U.S. Patent 5,548,506) in view of Applicant Admitted Prior Art (AAPA).

7. As to claims 1 and 19, Srinivasan teaches the invention substantially as claimed including: a method of managing resource usage by one or more resource entities, wherein each resource entity is configured to consume one or more resources (col. 3, lines 18-25; col.8, lines 54-57), the method comprising:

Determining whether a resource has reached a critical level (col. 5, lines 65-67; col. 7, lines 46-48 and lines 52-55; col. 9, lines 1-3);

When it is determined that a resource has reached a critical level, selecting a first resource entity based on one or more criteria (col. 4, lines, 62-63; col. 5, lines 65-66; col. 9, lines 2-3); and

When it is determined that a resource has reached a critical level, the selected resource entity to change its resource consumption state to a more restrictive state (col. 6, lines 6-7; col. 8, lines 20-23).

8. Srinivasan does not explicitly teach that requesting the selected resource entity to change its resource consumption state. However, AAPA teaches requesting the selected resource entity to change its resource consumption state

(page 2, lines 14-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Srinivasan and AAPA because AAPA's requesting the selected resource entity to change its resource consumption state would improved mechanisms for efficiently managing resource usage by applications.

9. At to claim 37, it is rejected for the same reason as claims 1 and 19, In addition, AAPA teaches that a memory and a processor couple to the memory (page 1, line 16).

10. As to claims 2-3, 20-21 and 38-39, Srinivasan teaches one or more criteria include a priority value for each resource entity and wherein the selected resource entity has a relatively lower priority than other one or more resource entities that are not selected (Fig. 9).

11. As to claims 10 and 28, AAPA teaches the selected resource entity may have or be requested to have a resource consumption state selected from a group consisting of a NORMAL state, a FAVOR_SPACE state, an ESSENTIAL_ONLY state, a TERMINATE_GRACEFULLY state, and a TERMINATE_ABRUPTLY state (page 2, lines 1-11).

12. As to claims 11-12 and 29-30, AAPA teaches the resource is selected from a group consisting of a Java heap, a plurality of file descriptors, video RAM, a native heap, a hardware resource, and persistent storage (Page 2, line2).

13. As to claims 15-18, 33-36 and 46-49, Srinivasan teaches when the selected resource entity changes to the requested state, determining again whether any resource is still at a critical level; when it is determined that a resource is at a critical level, selecting a second resource entity based on one or more criteria (Fig. 9); and when it is determined that a resource is at a critical level, requesting the second selected resource entity to change its resource consumption state to a more restrictive state (col. 6, lines 6-7; col. 8, lines 20-23).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 4-9, 13-14, 22-27, 31-32 and 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan (U.S. Patent 5,548,506) in view of

Applicant Admitted Prior Art (AAPA), as applied to claims 1-3, 10-12, 15-21, 28-30, 33-39 and 46-49 above, and further in view of Du et al (U.S. Patent 5,826,239).

16. As to claims 4-5, 22-23 and 40-41, AAPA teaches determining whether to request the selected resource entity a second time to change its resource consumption state to the previously requested more restrictive state (page 2, lines 14-15); and

When it is determined to request the selected resource entity a second time, requesting the selected resource entity a second time to change its resource consumption state to the previously requested more restrictive state (page 2, lines 14-15).

17. Srinivasan and AAPA do not teach the selected resource entity does not change its resource consumption state when requested to do so. However, Du teaches Du teaches the selected resource entity does not change its resource consumption state when requested to do so, (col. 14, lines 43-51; col. 17, lines 15-17).

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Srinivasan, AAPA and Du

because Du's the selected resource entity does not change its resource consumption state when requested to do so would reduce operation overhead is needed to maintain dynamic resource status without introducing long delay in run time resource assignment.

19. As to claims 6-7, 24-25 and 42-43, Du teaches determining whether to request the selected resource entity a second time is based on whether the selected resource entity has failed to change its resource consumption when requested to do so within a predetermined time limit (col. 18, lines 18-20).

20. As to claims 8-9, 26-27 and 44-45, Srinivasan teaches determining whether to request the selected resource entity a second time is based on whether a second resource entity may be selected and requested to change its resource consumption to a more restrictive state (col. 6, lines 6-7; col. 8, lines 20-23).

21. As to claims 13 and 31, Srinivasan and AAPA do not teach requesting the selected resource entity to change its resource consumption state to a more restrictive state is performed through a ResourceNotificationList to which a plurality of resource entities are registered. However, Du teaches requesting the selected resource entity to change its resource consumption state to a more restrictive state is performed through a ResourceNotificationList to which a

plurality of resource entities are registered (col. 2, lines 64-67; col.20, lines 43-46).

22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Srinivasan, AAPA and Du because Du's requesting the selected resource entity to change its resource consumption state to a more restrictive state is performed through a ResourceNotificationList to which a plurality of resource entities are registered would reduce operation overhead is needed to maintain dynamic resource status without introducing long delay in run time resource assignment.

23. As to claims 14 and 32, Srinivasan teaches obtaining the selected resource entity's current resource consumption state through the ResourceNotificationList prior to requesting the selected resource entity to change its resource consumption state to a more restrictive state (col. 9, lines 1-10).

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

December 22, 2004


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER